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FOREIGN AGRICULTURE

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This week's cover:

Midwest grain in these elevators, on the banks of the Maumee River in Toledo, Ohio, will move out to Lake Erie and through the St. Lawrence Seaway to foreign markets. See story about American ports beginning on page 8. (Photo: Robert Packo, Toledo.)

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Firmer Prices in Sight

By ROBERT W. JOHNSON

Assistant U.S. Agricultural Attaché, Rio de Janeiro

A new direction in Brazil's old and little-used minimum price program is bringing greater stability to farm prices, resulting in a good psychological effect on both sellers and buyers of farm products. Since 1967, an emphasis on loans rather than direct purchases by the government has encouraged farmers to store their crops in anticipation of higher prices rather than sell them at low prices during the period of abundance right after harvest.

Producers at one time were forced to sell their crops immediately for the best price they could get because of little on-farm storage and an urgent need for ready cash. As a result, prices of basic food crops—like corn, rice, and beans—traditionally have dropped at harvesttime, then frequently have risen 50 percent or more from this level between harvests. Now, under a better financed and administered minimum price program, farmers can put their crops in off-farm storage, obtain loans based on warrants, and wait for higher prices later in the season.

Background of the program

The minimum price program has long been on the books, but except for the financing of coffee¹ during 1956-57 and cotton in 1953 and again in 1959-63, it remained inactive prior to 1965. In that year the government strengthened the program with better financing and advertising. Excellent weather helped farmers produce good crops, and the government financed Cr\$293 billion (\$158 million) worth of commodities, compared with the previous high of Cr\$48 billion (\$77 million) in 1963. Most of the 1965 financing was for rice, with the government purchasing one-fourth of the crop.

These large expenditures in 1965 had an adverse effect on the government's restrictive fiscal policy and caused officials to be quite timid in setting minimum prices for 1966 crops. In that crop year weather was poor, and production fell substantially from the 1965 level. As a result, market prices were considerably above minimum prices and the

¹ The minimum price program for coffee is now a separate program administered by the Brazilian Coffee Institute. The Brazilian Government also sets prices for wheat (of which Brazil produces very little) and sugar. All wheat is purchased by the Bank of Brazil. Sugar sales are controlled by the Sugar and Alcohol Institute. Minimum prices for tobacco are published by buyers in advance of planting. The minimum price program discussed here—which includes most basic food crops—is administered by the Minimum Price Commission, Comissão de Financiamento da Produção.

A shift in emphasis from direct crop purchases to loans has pulled Brazil's minimum price program out of limbo and given it new life and active support from farmers.

For Brazil's Farmers Through Loan Program

government had to provide very little financing for the minimum price program.

In 1967—the first year of the loan emphasis—the program was again well advertised. In fact, the Governor of Paraná—one of the major agricultural States—encouraged farmers to take advantage of the loan provisions of the program to hold onto their crops and wait for higher prices later on. One consequence was that prices were higher than exporters had anticipated, and corn exports fell substantially below expected levels despite good harvests. However, the sizable corn stocks carried over into 1968 made possible an export record nearly twice as great as the previous high.

Loans accounted for 81 percent of the financing under the program during 1967, compared with an average of 33 percent for the previous 3 years. Under the loan provision, the farmer who puts his crop in storage and obtains a loan can later redeem the crop—paying storage costs as well—and sell it on the open market if the market price exceeds the minimum price plus storage costs. Otherwise, he could forfeit the loan and allow the government to take possession of the crop. In this case, the loan would become a purchase, and the government would pay the storage costs.

The program's effects

The new emphasis on loans gives the farmer greater latitude in deciding whether to sell his crops immediately or wait in anticipation of higher prices. If he obtains a loan, he can use this cash to pay pressing bills and, in effect, becomes a speculator waiting for a better time to sell. A considerable number of farmers have taken advantage of this program as evidenced by estimates that 20-30 percent of the 1966-67 rice crop in the key commercial production areas—Rio Grande do Sul and the Minas Gerais/southern Goiás region—was still in storage, owned by farmers, 6 months after harvest.

Although only a small proportion of Brazil's total crop output has been put under loan or purchased outright by the government, the program has had a definite effect on market prices paid to producers, partly as a result of buyer/seller awareness that the government stood ready to buy—or finance and eventually buy—a crop if the market price did not equal or exceed the support price plus storage and handling costs. In 1967 market prices were at least equal to (in the case of corn) or sometimes well above (rice) minimum prices set by the government.

In addition, prices paid to producers during 1967 for rice, corn, and beans were somewhat more stable than during most previous years despite relatively good outturns of all three

crops. Prices received by producers in São Paulo in December (generally the annual high) were 44 percent higher than at harvesttime for corn, 47 percent higher for rice, and about unchanged for beans. This compares with unweighted averages of 65 percent, 59 percent, and 43 percent, respectively, for the previous 7 years. This price stability continued into the following year.

The regional picture

The government in 1967 financed loans totaling NCr\$40,-832,680 (\$15 million) and purchases worth NCr\$3,803 (\$1,400) in the northeastern part of the country. In the southern and central parts, loans totaled NCr\$122,293,059 (about \$45 million) and purchases, NCr\$34,484 (about \$12,800).

Considering that the northeastern region produces only a small share of the country's total agricultural output, it seems to have done relatively well under the program. For example, the northeastern States produced 10 percent of Brazil's corn, but received 16 percent of total financing for this crop; they produced about 30 percent of the cotton, but received 47 percent of the financing under the minimum price program. For rice and beans they did not do so well. While these States produced 15 percent of the country's rice and 30 percent of its beans, they received only 8 and 20 percent, respectively, of the financing for these crops under the program.

Loans have been made both to farmers and to middlemen or cooperatives able to prove that they paid farmers the minimum price. Actually, relatively few of Brazil's total number of farmers, middlemen, and cooperatives participated directly in the program. However, the true effectiveness of the program cannot be gaged merely by the number of people receiving direct financing. This is because prices received by all farmers are influenced by the partial withholding of commodities from the market and by the psychological effect of the program on both seller and buyer.

Some of the loans have been quite small, indicating that small farmers and intermediaries as well as large ones have participated in the program. For example, the average loan for dry beans in 1967 was about NCr\$3,000 (about \$1,000); for corn it was just slightly higher; for rice NCr\$28,000 (\$10,400); for jute it was the highest among all commodities at NCr\$119,000 (\$44,100). While the average loan for rice was quite large, State averages varied widely. The smallest was about NCr\$400 (\$150) for Paraíba in northern Brazil; the largest was NCr\$90,000 (\$33,300) in Rio Grande do Sul, the country's leading commercial rice-producing State.

Foodgrain Supplies in India

The sharp increase in India's foodgrain production during 1967-68 and the prospects of a good harvest in 1968-69 have markedly improved the country's food situation. The outlook is that the overall foodgrain supply situation will continue to be comfortable during 1969.

Wheat production for this year is forecast at 18 million tons, 1.4 million more than in 1967-68. Production of coarse grains (sorghum, corn, millets, and barley) is estimated at 26 million tons. This is down 2.9 million from the 1967-68 harvest of 28.9 million tons primarily a result of dry weather in the major producing areas during August-September 1968.

Foodgrain imports in 1967-68 from all sources, excluding donations and overland imports from Nepal, totaled 8.1 million tons—6.4 million of wheat, 1.3 million of milo and corn, and 362,000 of rice. These purchases compared with 9.4 million tons of all foodgrains imported in 1966-67 and 8.9 million in 1965-66. Imports in the first 6 months of 1968-69 (July-December 1968) totaled 2.2 million tons including 332,000 of rice.

Prices of most foodgrains, except rice, in calendar 1968 were generally lower than the year before. Wholesale prices for foodgrains averaged 6 percent lower, while the index of annual average rice prices was 5 percent higher than in 1967.

Releases from Central and State stocks for distribution of foodgrains through fair price shops in calendar 1968 totaled 10.5 million tons compared to 13 million in 1967 and a record high of 14 million in 1966. Central and State reserve stocks of foodgrains, which in early 1968 had reached an alltime low, totaled over 3.5 million tons at the beginning of 1969.

—Based on dispatch from JAMES H. BOULWARE
U.S. Agricultural Attaché, New Delhi

Sunflowerseed in Yugoslavia

Yugoslavia harvested its largest sunflowerseed crop in history during 1968. The 309,000-ton production was up 59,000 from the 1967 crop. Increased acreage and high yields combined to produce the record-breaking crop.

Farmers planted more sunflowers in 1968 than previously in response to an increase of \$16.00 per metric ton in the guaranteed price for sunflowerseed; 398,000 acres were planted, 9.5 percent more than the year earlier. But more important than the acreage increase was the boost in average yield from 1,520 pounds per acre in 1967 to 1,720 last year. Exceptionally good rainfall was responsible.

Yugoslavia will continue in its efforts to grow larger sunflowerseed crops, and it appears that additional acreage will be planted. At the moment, industry leaders are talking about an eventual area of about 1 million acres in sunflowers, considerably above this year's acreage. Such a goal would exceed the commercial land space available and would mean widespread production on private farms as well.

Weather Hurts Argentine Grain

A combination of dry weather, winds, and extreme heat late in the year damaged Argentina's 1968-69 wheat crop, which earlier had looked unusually promising.

Total grain production from the 1968-69 crops is expected

to be slightly less than the 1967-68 production of 17 million tons. Estimated increases for corn, grain sorghum, barley, and rye were offset by declines for wheat and oats. Planted area of the six crops was up 2 percent to a total of 44.7 million acres.

The outlook for the 1969-70 grain area is for continued expansion of corn and grain sorghum; farmers have done well with these feedgrains in recent years. Grain sorghum especially has proved resistant to damage from the variable weather; wheat is more uncertain.

Argentine Livestock Situation

Cattle numbers in Argentina appear to have reached the peak of an expansion cycle which started in 1963. The 51.5 million head on farms on June 30, 1968, was only 238,000 above the 1967 level. The 1969 number is expected to show a slight decline to about 51.0 million.

Exports of fresh and processed meats in 1968 were valued at \$335 million, down 15 percent from the 1967 level of \$394 million. Beef exports, excluding canned, were \$180 million compared with \$232 million in 1967. The total value of livestock and livestock products (including live animals, hides and skins, byproducts, but not wool) was \$462 million, down from the \$545 million in 1967.

Shipments of chilled and frozen quarters dropped in 1968, especially to the United Kingdom, and shipments of cooked and frozen beef increased. Beef imports from Argentina had been banned by the United Kingdom until mid-April after a foot-and-mouth disease outbreak in the United Kingdom. Since then there has been an evident export shift by Argentina from beef quarters to cuts for the United Kingdom and continental trade. The United States, Canada, and Japan are the most promising markets for cooked, frozen beef. Spain, Greece, Portugal and a number of other countries continued to import Argentine beef in 1968.

Australians Set Wheat Quotas

Australian wheat industry officials have proposed enforcing delivery quotas in wheat growing areas to avoid a repeat in 1969 of the unmanageable wheat surpluses their country produced in 1968.

The Australian Wheatgrowers' Federation recommended a nationwide delivery quota of 344 million bushels, broken down by States as follows: Victoria 65 million bushels, New South Wales 123 million, South Australia 45 million, Western Australia 86 million, and Queensland 25 million. New South Wales and Queensland would be granted extra quotas of 6 million and 7 million bushels, respectively, for salable Prime Hard wheat if available.

The Federation wants the quotas implemented before the next harvest and has given State farmer organizations until May 30 to ratify the proposal.

The Federation's action came shortly after Australia's Minister of Primary Industry J. D. Anthony called for an industry move to curb output. He commented that financial implications could be considered by the Commonwealth Government only when all wheatgrower organizations had indicated their reactions, the system had been proved workable, and State Governments had backed the quotas.

Selective Expansion: Britain's Farm Plan

By DAVID P. EVANS

Office of the U.S. Agricultural Attaché, London

The Annual Review and Determination of Guarantees, 1969, pertaining to agriculture in the United Kingdom for the coming agricultural year, was presented to Parliament by the Minister of Agriculture, Mr. Cledwyn Hughes, on March 19, 1969.

The Review is an annual evaluation of farm costs and incomes, agricultural investment needs, and endeavors where production expansion or contraction are required. This evaluation must not only take into account domestic problems but international agreements and commitments and the wider considerations of U.K. trade with the rest of the world. Also, in-country food prices and their effect on wage costs in the nation must be analyzed.

The 1969 Review has been awaited with more than usual eagerness. For agriculturalists, 1968-69 has been a discouraging year. The livestock industry has been in the process of recovering from the 1967-68 foot-and-mouth disease epidemic. Milk producers had to contend with heavy imports of dairy products, particularly cheese, while the market for liquid milk within the United Kingdom declined for the first time since 1957. Heavy rains and floods coincided with the harvest of many field crops. Costs of many agricultural inputs have risen because of monetary devaluation, high interest rates, and increases in agricultural wages. Credit availability has encountered setbacks. All of these factors have been causing farmers to want and expect a Review that would provide generous help for agriculture.

In addition, there has been a strong push by the National Farmers' Union for a Review that would provide the means for a considerable expansion of U.K. agriculture in order to cut imports of products raised in temperate climates. Greater U.K. self-sufficiency in agricultural goods, according to the National Farmers' Union, would both aid farm income and help the United Kingdom's balance-of-payments problem.

Outline for 1969-70 action

The keynote of the Review is selective expansion in particular agricultural sectors. The commodities that get priority in Government encouragement are wheat, barley, beef, and pigs. Other efforts outlined in the Review are for achieving market stability through import management—that is, phasing imports so they will not coincide with peak U.K. market periods for commodities and preventing too low import prices.

The Review raises the value of the Government's award to agriculture by about US\$81.5 million net. The greatest award increases are given to the priority commodities, and smaller awards are made on fat sheep and potatoes. The increases are intended to provide an extra \$98.5 million to encourage expanded production. The difference between the net figure and the figure for expanded production is because egg guarantees were cut by about \$11 million and the fertilizer subsidy by \$6 million.

Evaluation and reaction

While the Government award increase of \$81.5 million in guaranteed prices, subsidies, and grants for the financial year

1969-70 seems generous, some of the expected debits of U.K. agriculture for the year ought to also be examined.

It is estimated that farmers will have increased costs of \$96 million, including \$4.8 million due to a recent raise in bank interest rates. Furthermore, net farming income for 1968-69 is estimated at only \$1.1 billion—or about \$94 million less than during the previous fiscal year. The drop in farm income is chiefly because of the 1967-68 foot-and-mouth disease outbreak and last year's bad harvesting weather.

The reaction of the National Farmers' Union to the Review is hostile. They claim that "in denying British agriculture the resources necessary for expansion, the Government has completely failed to grasp the constructive opportunity provided by this year's Price Review to reduce imports and tackle the balance of payments problem at its roots."

Union membership includes nearly all of Britain's farmers. The majority of these rely on mixed farming, in which milk production is the biggest single item providing income.

The Union claims that in very simple terms with increased farm costs of \$96 million and with a net award jump of \$14.5 million less than increased costs, farmers in general will not have the means or the confidence to expand even in those areas where the Review is concentrating the available money.

The other side of the story may be that the Government is not aiming to markedly expand production this agricultural year but is trying to create a firm basis for a definite forward step in 1970. The Review itself states that the present planning is on the basis of objectives through 1972-73.

Detailed plans for commodities

The Government wants an integrated approach to improved commodity production. For example, it wants not only to increase grain yields but also acreage planted to grains. This will mean smaller area in pasture so that increased livestock production will require better management to raise more animals on less land. An integral part of increased production of commodities must be changes by farmers in their techniques and practices.

Beef. For some time the Government has tried to encourage raising more beef from both beef and dairy herds. In the Review, the guaranteed price of fat cattle is raised by \$1.80 per hundredweight (112 pounds) for live animals to a total of \$25.80 per hundredweight.

The Government has been pushing for the retention of all suitable calves from the dairy herd to be raised for beef, and the numbers of calves slaughtered has fallen sharply. The Government also estimates that the effects of the foot-and-mouth epidemic should be surmounted by June 1969 for dairy cattle, whose numbers have been increasing rapidly. About 105,000 dairy cows were lost during the outbreak.

The beef herd has continued to expand, but at a slower rate than previously—only about 1 percent during 1967-68. In the 3 preceding fiscal years, the herd expanded a total of 16 percent. The Government feels that not only do herd sizes need to be increased, but better management techniques are needed by breeders, rearers, and fatteners.

To further encourage beef production, the Review raises the beef cow and hill cow subsidies by \$2.40 per head so that

the beef cow subsidy is now \$24.00 and the hill cow subsidy approximately \$34.50. It also has clauses designed to encourage more intensive use of grassland; subsidies will now be payable for one hill cow per 4 acres instead of one cow to 5 acres as previously and for one beef cow to 2 acres instead of one cow to 2.5 acres.

The total awards on beef are worth about \$48 million.

Milk. The Government is aware of the strong upward trend in milk production in the United Kingdom. Production for 1968-69 is estimated at 1.7 percent above the previous fiscal year's, or about an extra 45 million gallons. Production is expected to go up again in 1969-70. This expansion is due chiefly to increased cattle numbers, to better yields per cow, and to an increase in the average size of dairy herds.

While milk production is climbing, however, liquid consumption has dipped in 1968. This decline is attributed to an increase in the price of welfare milk and the ending of distribution of free milk for secondary schools. The Government hopes, however, that production and consumption will have balanced themselves by the end of 1969 and that thereafter the trend in liquid consumption will be upward.

The difficult problem of getting more dairy calves for beef from the dairy herd while keeping down milk output is discussed in the Review. The Government's stated policy has been that dilution of milk prices because of greater milk production caused by increased breedings to produce calves would be compensated by increased guaranteed milk prices.

In 1969 the Government has decided to enlarge the guaranteed milk price by \$0.04 per gallon to a little over \$0.45 a gallon. The milk guarantee, however, is not paid by the Government but comes out of the retail price of milk. There is a danger that any rise in milk retail costs will cause a further dip in consumption, greater oversupply, and lessened earnings per gallon for dairy farmers. By a series of complicated calculations, it has been estimated that the decline in liquid milk consumption in 1968 has already resulted in a loss of about \$0.04 per gallon of earnings for farmers. Thus, the increase in guaranteed price is exactly cancelled by losses, leaving the net award on milk unchanged. The Government believes that despite this neutral award the higher prices for fat cattle ought to provide dairymen with increased earnings from calf sales.

Pigs. The United Kingdom at present is self-sufficient in fresh pork but not in bacon. The Government's pig policy is aimed at increasing production to meet expanding domestic demand for fresh pork and to lessen the share of imported bacon consumed in the country.

The Review states that the pig herd increased by about 7 percent in 1968 and that it has been recovering from the trough in the pig cycle that occurred in 1965 and 1966. In order to insure that expansion in pig numbers continues, the guaranteed price of fat pigs has been increased by about \$0.06 per 20 pounds for a total of \$10.61 per 20 pounds. This price is operative if the number of pigs coming to market during the coming year does not exceed 14.3 million and is not less than 12.9 million. If pig marketings fall below the lower limit, the effective guarantee price will be raised. If marketings exceed the upper limit the full guarantee price will not be paid.

The total awards on pigs are estimated at \$12 million.

Sheep and wool. Because of a continued reduction in the size of the national breeding flock, which went down 2 percent in 1968, the Government has raised the guaranteed price

of fat sheep and lambs by about \$0.015 per pound to a total guarantee of \$0.44 per pound. The total value of the increased guarantee is about \$7.2 million.

Previous guarantees seem to have had the effect of raising the number of sheep in hill and upland areas to satisfactory numbers but not staunching the decline in numbers of lowland sheep, which has overbalanced the national trend toward a dip. It is hoped the increased guarantee will be effective. Another measure outlined in the Review is a change in the maximum stocking ratio from two ewes per acre to two and one-half ewes per acre.

On wool, the Government has made no change in the guaranteed price, which remains at a little over \$0.53 per pound.

Cereals. The Government's aim for cereals is an expansion to the full extent that is technically possible and consistent with reasonable resource use and support cost. This is a continuation of previous policy, and wheat area went up by 100,000 acres in 1968-69, although total area of barley, oats, and mixed corn fell by 140,000 acres. Total grain production in 1968-69 was 13.2 million tons, or 1.2 million tons less than during the record crop year of 1967-68.

To encourage planting of the larger cereals acreage needed to bring home production up to levels sufficient to meet the needs of the larger livestock population envisaged, guaranteed prices on cereals have been revised as follows:

- Wheat guarantee prices are pushed up by about \$0.19 per hundredweight (112 pounds) to nearly \$3.50. There is no quantity limit on wheat that will receive the full guarantee price.

- Barley prices have been increased by about \$0.10 per hundredweight to approximately \$3.12. Furthermore, the quantity limit on barley to receive the full guarantee price is abolished.

- Oats and rye have unchanged guarantee prices.

- The arrangements for deficiency payments on wheat and barley will still be tied to target indicator prices, which relate to the current minimum import prices. Deficiency payment is based upon the difference between the guaranteed price and either the average market price or the target indicator price, whichever is the higher. In 1969-70 the target indicator price per hundredweight for wheat will be \$2.60 and for barley \$2.50.

In terms of the total award, the increase in the guaranteed price of wheat is worth \$13.2 million and on barley is worth \$15.6 million.

Potatoes. The objective for potatoes is to meet home demand in full except in years of unusually low yields. Although the Government expects that about 650,000 acres (fewer than were planted in 1968-69) will be sufficient to meet 1969-70 demand, it has increased the guaranteed price by \$0.60 per ton to about \$36.30 to prevent acreage from going down too much. The potato award is worth \$2.4 million.

Eggs. In line with previous Government policy the guaranteed price of hen eggs is being reduced by a little over \$0.01 per dozen, and the guaranteed price of duck eggs is being cut by \$0.04 per dozen. At the same time, the feed-price formula in which the guaranteed egg price varies with the price of feed is being abolished. The reduction in the egg guarantees cuts the value of the 1969 award by \$11 million.

Sugarbeets. No change was announced for the guaranteed

price on sugarbeets, which remains at \$16.32 per ton (16 percent sugar content). According to the Government, the Commonwealth Sugar Agreement and the existing sugarbeet acreage supply 95 percent of domestic sugar requirements. Domestic requirements are not expected to increase markedly.

Production grants and subsidies. The only change made this year is a reduction of \$6 million in the value of the fertilizer subsidy from the estimated 1968-69 cost of \$79.2 million. Government reasoning is that as fertilizer usage continues to increase while subsidized, the costs to the Government mount.

Implications of the Review

Some time must elapse before the success of the selective expansion program outlined in the Review for 1969-70 can be evaluated. Any acceleration in pig production would not be-

British Columbia's Fruit Suffers Rough Winter

Fruit growers in Canada's west coast Province of British Columbia predict generally smaller crops this year because of severe winter weather. Fewer apricots and peaches will be produced, and no appreciable gains are expected in apple, cherry, and pear output. The Fraser Valley strawberry and Okanagan grape crops both will be between 20 and 25 percent of normal. Cranberries and blueberries, however, should be close to normal; and the raspberry crop could be bigger than last year's, which was hard hit by rain.

Industry sources predict much higher prices for strawberries because the sparse crop will boost labor costs for picking. Also, fresh strawberries will have to be imported from California, Mexico, New Zealand, and Chile to take up the slack in local output. The plant manager of one major jams and jellies plant says his firm needs 2½ million pounds of jam strawberries to satisfy its markets, which include the U.S. northwest, California, and possibly Europe. Jam and jelly prices will be most likely to reflect the extra costs from such importing.

Cold weather prevented what might have been the first season of increased apple production from high-density planting. Growers in recent years have been replacing old apple trees with a new type of semi-dwarf tree that requires less space, instead of developing new orchards that would be difficult if not impossible to irrigate properly. It is now possible to have more than 100 trees per acre instead of the usual 40 yielding a substantially increased tonnage of apples. Industry managers predict that the 1972 apple crop should exceed 10 million 42-pound boxes, more than double the anticipated 1969 crop. Fifty-six percent of Okanagan apples

Puerto Rico Sells Dairy Cows

The expanding dairy industry in Puerto Rico is not only increasing its own production year by year but is also exporting quality dairy cattle to neighboring Caribbean areas. For example, 30 head of Holsteins were exhibited at the National Livestock Fair in the Dominican Republic and sold after the fair closed on March 2, 1969. Total sales figures for 1968 are not yet available, but 136 dairy cattle for breeding purposes were sold in 1967 and 109 were sold in 1966 to Caribbean islands and to Guyana.

Within Puerto Rico milk production has increased from 36,500 gallons in 1950-51 to 95,000 gallons in 1967-68.

come apparent before the end of 1969; an upsurge in beef output would not show up until 1970. For field crops, it is too late for the Review awards to have much impact upon 1969 production. However, the increased guarantee price on barley could possibly encourage plantings of spring barley—particularly since the planting season this year has been considerably delayed beyond its normal time by the unusually long winter.

The chief result hoped for from the selective expansion program is a firming up of the present agricultural situation in preparation for a forward step in 1970. If the summer and autumn of 1969 enjoy even average weather, this aspiration for 1970 could well be fulfilled provided the individual farmer is not too discouraged and influenced by the reaction of the National Farmers' Union to the Review.

and apple products are sold domestically, most in western Canada.

Export markets for British Columbia's tree fruits are actively being sought in the Pacific, notably in Mainland China, Japan, and New Zealand. Devaluation of the pound and new competition from France undermined the traditional British market; sales to the United Kingdom sagged from 402,000 bushels in 1966 to 94,000 in 1967.

The industry is developing new techniques for preserving fruit so that constant and predictable supplies of both fresh and processed fruit will buttress marketing efforts.

—Based on dispatch from EUGENE T. OLSON
U.S. Agricultural Attaché, Ottawa

Phosphate Discovery in India

A recently identified phosphate deposit in India—with mapped reserves of some 70 million tons—promises to supply sufficient rock phosphate to meet the country's fertilizer needs indefinitely. The discovery is particularly valuable to agriculture because phosphate fertilizers in addition to nitrogen and potassium have been three of the essential ingredients in the dramatic improvement of India's grain yields during the past 3 years.

From 1951 to 1968-69 consumption of phosphate nutrients on Indian farms rose from 7,000 tons to 500,000, and nitrogen from 59,000 to about 1.5 million, and potassium nutrients from 8,000 to 300,000. Furthermore, India's fertilizer import bill has risen to an estimated \$250 million for the year ending March 31, 1969.

An intensified search for phosphatic ores led to the discovery of the commercial deposits in and around Udaipur, a dry area in Rajasthan. Much of this ore is exceptionally high grade. The discovery promises to be one of the greater boons to Indian agriculture in recent years. It is already causing prospective fertilizer manufacturers to reconsider planned plant locations.

The discovered rock is on Government of Rajasthan land, and both the State and National Governments may soon look favorably toward the creation of a fertilizer/phosphoric acid/elemental phosphorus complex. Initially it would be oriented toward India's self-sufficiency in phosphate and perhaps eventually to producing exportable surpluses.

—BY JAMES H. BOULWARE
U.S. Agricultural Attaché, New Delhi



The Jumping Off Point For U.S. Exports

From the farm to the local grain elevator or warehouse to the barge, train, or truck for a long haul to the port—that's the typical journey of millions of tons of U.S. farm products destined for export. And the end of this trip—the port—is the exit point for an export trade that brings billions of dollars back to the United States.

Hundreds of ports dot this country, literally extending from the innermost reaches of the Gulf of Mexico to the Atlantic and Pacific coastlines to the Nation's very heartland by way of the St. Lawrence Seaway. Shipping from these various ports has become increasingly convenient as a result of the wave of modernization now going on.

Uppermost in the new technologies which affect our port systems are innovations being wrought by the use of containers—which are nothing more than rectangular railroad-car-sized boxes made of steel, aluminum, or metal framed plywood; these are at times interchangeable between truck, rail, and ocean carriers. Other industry innovations include fully containerized vessels; computerized warehousing systems; and a growing fleet of super tankers capable of carrying bulk grain products and utilizing pneumatic equipment to discharge cargo.

Here's a profile of some typical ports in this country—

The Gulf ports

New Orleans. This famous home of jazz, creole cooking, and the riverboats introduces the Mississippi River to the sea—a convergence which has made New Orleans a major U.S. port and top one in the export of farm products. In 1967, \$621 million worth of U.S. farm products moved through this port, including \$184 million of corn, \$147 million of soybeans, \$97 million of cotton, \$86 million of wheat, and \$63 million of feedgrains other than corn.

The Mississippi River still serves the city well. It has, for

Author's note: Ports mentioned are only a few of the many important ones that handle our \$6.3 billion agricultural export trade. *Foreign Agriculture* wishes to thank the various port authorities and shipping lines for their help in supplying information for this article.

instance, yet to be replaced as the top mode of transporting grains and soybeans to New Orleans, where huge riverside elevators receive the products for storage and processing. From there, it's into the steamers for export to virtually every part of the world.

Like many of the other ports, New Orleans has steadily modernized its grain elevators, warehouses, and other export facilities and is increasingly gearing its operations to movement of van containers and palletized cargoes.

Houston. Third largest exporter in the nation and the top one in the Gulf of Mexico, Houston each year ships out more than half a billion dollars' worth of farm products—products which account for over two-fifths of its total export. Back in 1915, when the city was emerging as a shipping center, cotton and lumber made up the bulk of its exports. Today, lumber has disappeared from the scene, and cotton is diminishing in importance. Replacing these are wheat, shipments of which totaled \$261 million in 1966; rice, \$78 million; and other grains. In fact, the first half of 1968 saw almost a sixth of our grain export move through Houston alone.

To expand and improve its exports, Houston over the past 12 years has invested more than \$60 million in new docks, the public grain elevator (which was doubled in size) and other buildings, a bulk handling plant, and container facilities. Among the changes the port is proud of is the shift from bagging to bulk handling of rice, soybean meal, and grains; its new Paceco container crane; its World Trade Department, which assists exporters in finding overseas customers; and its \$3-million World Trade Building.

Galveston. A short distance from Houston lies this oldest port of Texas, which is also the closest one to the open sea. Besides being long, Galveston's history has been quite colorful. In 1817-21, the port flew the flag of pirate Jean Lafitte, handling all his smuggled goods. Later—in 1912-13—it ranked No. 2 in size, handling agricultural cargoes worth \$289 million. This was short-lived, however.

Today, Galveston no longer holds such rank, but it still claims to be the world's largest cotton shipper—about 65



Farm Trade

U.S. exports on the way out (top, l. to r.): Containers being loaded on ship in New York; cornpickers in Toledo; flour in Corpus Christi; tobacco hogsheads in New Orleans; cotton in Galveston.

percent of our cotton exports moves through Galveston. All told, 1.5 million tons of farm products were exported from here in 1967 (an off year), with cotton and wheat far the largest items.

Galveston is keeping up with the future as well as the past. It was the first port to offer special rates for unitized or pre-palletized cargoes, and it will be speeding shipments of such cargoes once its new \$9-million container terminal is completed.

Corpus Christi. Farther into the Gulf is this big agricultural exporter. Corpus Christi in 1967 shipped out \$103 million worth of agricultural products. It is one of the biggest exporters of grain sorghums—\$68 million in 1967—and also ships large volumes of wheat and cotton. The port boasts 614,754 square feet of covered warehouse space and a giant Producers' Grain Corporation Elevator with a capacity of 6.3 million bushels.

West coast ports

Long Beach. To the west lies the Pacific coast port of Long Beach, which calls itself "America's Most Modern Port." While it cannot boast tonnages nearly so impressive as the Gulf ports, it is nevertheless a major Pacific coast handler of farm products. Total dollar value of agricultural exports moving out of Long Beach is something over \$66 million, with grains the top export at \$29 million and hides and cotton next with about \$13 million each.

Among the port's facilities are one container berth and twin cranes for loading containers aboard ship. Further plans for Long Beach include construction of an additional nine container berths, which are scheduled for completion by 1980.

It seems that practically everything is being containerized or exported in bulk at this port. Cow hides and cotton are the latest products moving by way of container—innovations that originated at Long Beach. A 2-million-bushel elevator stores the grain moving through Long Beach, and this is increasingly being carried overseas by 40,000 to 50,000 ton vessels.

Stockton. This fast-growing Pacific coast port introduces California's Great Central Valley to the sea. Stockton actually



Workers in Portland, Ore., wheel apples and pears toward ship; \$4-million of these products are exported yearly from Portland.

lies 75 nautical miles east of San Francisco, its link to the Pacific being San Francisco Bay and from there a channel down the San Joaquin tideway.

The port is young—it became a deepwater port in 1933—and still relatively small, with a total agricultural export in 1967 of only \$78 million. It is, nevertheless, the second largest dry-bulk cargo exporter on the west coast (80 percent of California's grain exports move from here) and one of the most modern ports in the country. Among its up-to-date facilities are over 2 million square feet of sprinklered and computerized warehouses, the highest grain elevator west of the Mississippi, and this country's only bulk milled rice facility. Top exports are grain (including rice), \$36 million in 1966; canned goods, \$17 million; and dried fruit, \$17 million.

Stockton is now in the process of adding a \$4-million container area and widening its channel to the Pacific (a \$60-million project called "Operation Big Ditch") so that larger ships can move in.

Portland. Further on up the coast is this large Oregon port.

View of the port of Stockton, Calif.—an inland port that has grown rapidly in the last few years and now handles a large share of California's agricultural exports.

In 1967, Portland shipped out \$193 million of farm products, with wheat's share of \$154 million dwarfing all others. Portland is the largest grain exporter on the west coast and has the biggest grain elevator on tidewater west of the Mississippi. This elevator—owned by the Commission of Public Docks—has a capacity of 8 million bushels.

Portland's location on the Columbia River makes it one of the few ports in this country that receives products by all three modes of inland transportation—rail, truck, and river barge. Like the other ports, it is moving rapidly to accommodate the trend toward containerization and bulk handling of commodities.

Great Lakes ports

Duluth. This Minnesota port (which shares a harbor with Superior, Wisconsin) has a prime location at the head of the Seaway and an area of service that extends to the west coast and Alaska. It claims to be the largest bulk traffic port in the world and is usually the United States second port—after New York—in annual tonnage.

Grains are Duluth's ranking agricultural export, totaling 2.2 million tons in 1967; this export is handled by 14 grain elevator docks, which have a total storage of nearly 75 million bushels and can load 40,000-60,000 bushels per hour. Other important agricultural exports from Duluth include grain byproducts (178,690 tons in 1967), nonfat dry milk (87,058 tons), and animal fats (34,785 tons).

Toledo. Although a leading Great Lakes port for over 100 years, Toledo did not come into its own until opening of the St. Lawrence Seaway in 1959. Since then, volume of soybean and grain shipments—its largest exports—has risen nearly fivefold to almost 2 million tons, and this port has emerged as one of the busiest on the Great Lakes. Agricultural shipments from Toledo totaled \$119 million in 1967 and included \$61 million of vegetable oils and oilseeds, \$29 million of corn, and about \$13 million each of wheat and fodders and feeds.

Since 1959, Toledo has spent more than \$25.7 million in improving and updating its facilities, which today include three grain elevator complexes, each capable of loading 50,000 bushels per hour; a 125-acre general cargo center; and the Great Lakes' only foreign trade zone. It is also a Seaway pioneer in movement of containerized cargoes overseas.

Atlantic coast ports

New York. Agricultural products rank low on the list of exports from this second busiest port in the world (Rotterdam is first). Nevertheless, the sheer volume of its trade puts New York near the top among agricultural exporters, with a 1967 farm-product shipment of \$312 million. Manufactured tobacco was the largest item moving out (\$81 million) in 1967, followed by fresh and frozen meat (\$34 million), and miscellaneous foods and preparations (\$23 million).

New York's real claim to fame, of course, is its export of nonagricultural products, and its huge imports. Although its dominance of U.S. trade has declined over the years, this port still accounts for almost 30 percent of the total and has a



yearly cargo of around 120 million short tons; in 1967, \$7.5 billion of our exports moved through New York alone.

Currently, New York is in the midst of a "container revolution," and volume of general cargo shipped in containers is expected to rise from 1966's 15 percent of total to 50 percent by 1975. Already, the port is known as the "container capital of the world" because of its 905-acre Marine Terminal at Elizabeth, N. J., which has 12 containership berths in operation and 11 more under construction. Similar facilities are being built at Staten Island, which plans a huge terminal, and at Port Newark, Jersey City, and Edgewater, N. J.

Another asset to the port is the World Trade Center, now being built in lower Manhattan. The \$575-million center, due to be fully operating by 1972, will make room for the multitude of services and activities that go along with trade at this busy port. The center is being financed and constructed by the Port of New York Authority. Among its notable features will be twin towers rising 110 stories from the ground, making it the world's highest building.

Baltimore. The Atlantic coast's most westerly port, Baltimore in 1967 shipped out \$105 million worth of U.S. agricultural products. Its location 150 miles inland from the sea at the head of the Chesapeake Bay puts Baltimore close enough to the Midwest so that a large traffic in grains and oilseeds moves through this port. In fact, wheat and oilseed cake and meal accounted for almost two-thirds of the agricultural export value in 1967, earning \$34 million and \$31 million, respectively. Over the last 25 years, Baltimore's exports of these and other bulk products have outpaced other shipments, rising more than threefold.

The port is favored by two exits to the sea—the south entry, a 142-mile trip up the Chesapeake Bay channel; and the north entry, a 15-mile trip up the Chesapeake and Delaware Canal. It also boasts pier facilities that have been expanded and modernized in recent years (and include a new containership terminal). Looking to the future, Baltimore plans a continued shift to bulk and container storage and loading facilities plus construction of a world trade center close to the harbor.

Norfolk and other Virginia ports. On down the coast is Norfolk, which appears destined to become one of the superports of the future, and neighboring Portsmouth and Newport News.

Norfolk is one of the oldest ports in the country. The city, which was built specifically as a trading center, launched its export trade with a shipment of tobacco in the late 17th century. Tobacco still ranks as far the largest agricultural money earner, but grains and oilseeds are also important moneyearners.

Norfolk has 155 berths and a total trade worth nearly a billion dollars. It's promising future, however, rests on a growing container base—the second largest on the east coast—and its convenient mid-Atlantic-coast location. Built at the site of the old Norfolk Army Base, the container port is known as the Norfolk International Terminals. This facility was begun in 1966 and was fully operational by early 1968, although much expansion is still to come. Facilities include two transtainers and a portainer for use in loading containers onto ships; four special Tainer Trains, berths for eight vessels; and warehouse storage space of about 1 million square feet. One major project at Norfolk is finding a way to containerize tobacco, most of which still moves out in the traditional way—in hogsheads; two giant fumigation chambers now under construction are specifically designed to handle these tobacco containers.

Also gearing for the future are Portsmouth, which now has in operation an 800-foot container berth and plans to build three more container berths; and Newport News, with special container facilities and an area that will accommodate about 800 containers.

These and the other ports of Virginia together handled around half a million dollars' worth of agricultural products

in 1967, most important of which were corn, wheat, oilseeds, and tobacco.

A look into the future

While nostalgic scenes like grain barges on the Mississippi will be with this country for a long time, some dramatic changes appear destined for our ports.

A not-so-pleasant part of the picture is that modernization has some ports virtually fighting for their lives—a struggle that will continue as modernization goes on. Already, containerization and other innovations have made it possible for individual ports to greatly increase their business. This, in turn, means fewer are needed to accomplish the job of exporting and importing unless there is a great surge in total trade. Thus, conveniently located harbors, well adapted to containerization, have the potential of becoming “superports” while less advantaged ones may well see their volume siphoned off and their importance diminish.

Also arising as a result of containerization—and the need to shorten the transit time between the Far East and Europe—is the land bridge concept. This amounts to moving containerized cargoes across a country, rather than around one, possibly saving on time and money. Containers now are being used to carry goods from the eastern United States to Japan and back; it is conceivable that in the future products moving from Asia to Europe will commonly go by containership to Pacific coast ports, across the United States by trucks or high-speed container trains, and then onto ships again for the Atlantic crossing. Products moving from Europe to Asia would follow the same route.

These and other changes, of course, will have an important bearing on our future agricultural exports, as ports will long remain the jumping off point for that trade.—B. H.

Rail car dumper at New Orleans, below, unloads export grain. Right, Houston's Paceco Crane stands ready to lift containers onto ships. Lower right, nonfat dry milk, flour, and other products await shipment from Duluth, Minnesota.



New Wheats Power Bigger Pakistan Harvests

By THEODORE R. FREEMAN, JR.

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The wheat harvest this spring (March-April) in Pakistan is expected to be another forward leap in that country's sprint from foodgrain deficits to abundance. However, it is not yet clear whether production in West Pakistan (the country's wheat-growing section) will exceed both its needs and those of East Pakistan.

The 1968 target for the wheat harvest is 7 million long tons, and indications are that this goal may not only be achieved but perhaps even surpassed because of bigger plantings of new, high-yielding wheat varieties, increased wheat acreage, more acreage under irrigation, greater use of fertilizers, and good weather during the growing season. The factor most important in boosting production is more widespread use of the new high-yielding wheat varieties introduced to West Pakistan from Mexico.

Originally, the Pakistan Government planned to achieve a wheat harvest of 7 million long tons during the 1969-70 season. But the 1967-68 bumper wheat harvest of 6.4 million long tons (47 percent greater than the previous season's outturn of 4.3 million tons) prompted officials to try for the 7-million-ton mark a year earlier.

Steps taken during 1968-69 to achieve the new goal were an increase in the area planted to wheat (up from 15 million acres in 1967-68 to 15.5 million in 1968-69) and expanded use of the new varieties (a jump from 2.4 million acres planted the season before to between 3.5 million and 4 million in 1968-69). Encouragement to farmers to grow the new wheat is given by government programs such as subsidies on fertilizers (needed for the best yields by the new wheats) and guaranteed prices for output.

Role of the new wheat varieties

Although the big 1967-68 jump in wheat production was certainly helped by plentiful rainfall in nonirrigated areas and

abundant supplies of water in irrigated tracts, according to official Pakistani Government statistics the use of high-yielding wheats was the chief trigger. Average yield for areas sown with the new wheats (15 percent of total acreage) was 34.6 bushels per acre; average yield for land planted with traditional varieties was only 12.4 bushels per acre.

The 47-percent leap in production between 1966-67 and 1967-68 was achieved with only a 12-percent increase in acreage. The Pakistani Government calculates that acreage sown to the new wheat varieties accounted for more than one-third (34.9 percent) of the total 1967-68 harvest and nearly two-thirds (63 percent) of the increased output. The average yield per acre for the 1967-68 wheat harvest was 15.9 bushels—31.6 percent greater than the average yield of the preceding five harvests, 12 bushels per acre.

The new wheat varieties are gaining wide acceptance by Pakistani farmers because of their high yields. The general name used for all the different new varieties is "Mexi-Pak," indicating the Mexican origin of the wheats and the modification of some of the most popular types to suit conditions in Pakistan.

History of Mexi-Pak

The new wheat varieties were first introduced to Pakistan by wheat botanists who had studied the dwarf wheats being developed in Mexico. In 1962 samples of experimental Mexican wheats were brought to Pakistan and planted.

Wheat production to consumption in Pakistan. Below, left, farmers plow wheat land and right, carting flour from mill; far right, author at shop that sells bags of atta.



One of the sample wheats was coded Mexico 8156, or CB 90, and was a cross between Panjamo 62, a Mexican dwarf type, and Gabo 55, an Australian variety. This strain did extremely well in West Pakistan and appeared to be resistant to local wheat diseases. But it had one serious defect. Plants grown from the seed might have either red grain or white grain, and a field of the new wheat produced "mixed" grain of several colors.

Pakistani scientists developed two sister lines from the original Mexico 8156. The two lines are similar, but one produces only white grain and is now called Mexi-Pak 65 and the other breeds true to red grain and is known as Indus 66. Other wheat specialists in Mexico did further work on the two lines and produced supplies of seed.

Two other varieties brought to Pakistan in 1962 were Panjamo 62 and Lerma Rojo 64. These did well but had soft to medium grain rather than hard grain. Also, they did not lend themselves to making flour of the type most used in Pakistan.

The first imports to Pakistan of commercial seed rather than seed for experimental purposes were in 1965 and consisted of 350 tons of Panjamo 62 and Lerma Rojo 64. The first commercial crops of Mexican dwarf wheats in Pakistan were from these strains.

In the summer of 1967 Pakistan sent a mission to Mexico to purchase seed of the varieties Mexi-Pak 65 and Indus 66. As a result, 40,000 tons of Indus 66 and 2,000 tons of Mexi-Pak 65 were shipped to Pakistan in time to be sown in the fall of 1967.

Altogether, about 2.4 million acres were planted to the four varieties for the 1967-68 wheat season; for the 1968-69 crop between 3.5 million and 4 million acres were sown.



Wheat and wheat flour characteristics

The general characteristics of Mexi-Pak wheats, in addition to high yields, are stiff straw, heights at maturity of 30 to 40 inches compared with 40 to 60 inches for traditional varieties grown under the same conditions, and high capability for converting fertilizer nutrients to grain. The short, stiff straws make the wheat less apt to lodge. The high response to fertilizer helps to produce large yields on some of Pakistan's not-so-fertile soils.

Some selected characteristics of the different Mexi-Pak wheats used in Pakistan are given in the table that follows. The characteristics are for wheats grown in microplot tests on irrigated land in West Pakistan.

Variety	Color	Hardness	Protein content	Weight	Yield
			Percent	Pounds per bushel	Bushels per acre
Mexi-Pak 65	White	Medium	12.70	66.2	57.11
Indus 66	Red	do.	11.69	61.2	54.43
Panjamo 62	do.	Soft	12.73	61.2	50.86
Lerma Rojo	do.	Soft to medium	12.27	65.5	46.88

The variety of Mexi-Pak that has gained the greatest popularity in Pakistan is Mexi-Pak 65. In test plots it has yielded better than its sister line Indus 66, its protein content is relatively high, and its chapatti-making qualities compare with the best indigenous varieties.

In Pakistan the chapatti-making qualities of a wheat are of great importance as three-fourths of wheat used is consumed in this form. Chapatties are flat, round, thin pieces of unleavened bread made from a dough consisting chiefly of coarsely ground wheat flour and water and either baked on a griddle or fried in vegetable oil. Mexi-Pak 65 can be ground into flour very suitable for chapatties because it has a relatively high gluten content, which makes the bread hold together well. Chapatties made from low-gluten flour are crumbly, fragile, and hard to eat. The special form of flour used in chapatties is called atta.

Problems of abundance

The breakthrough in wheat production in West Pakistan has created new policy problems for the government. After years of deficits in required foodgrains, West Pakistan now faces the prospect of substantial carryover of wheat. The new production technology for wheat has made it possible for Pakistan to expand output faster at present than is required by the rapidly growing population. The likelihood of surpluses in the future makes it necessary for West Pakistan to either curtail production or find some way to ship its surplus wheat to meet East Pakistan's needs or possibly to seek outlets in foreign markets. The latter alternative would necessitate substantial export subsidies because of Pakistan's relatively high cost of wheat production.

Another problem of abundance is lack of storage facilities for carryover stocks. In West Pakistan, where Pakistan's wheat is grown and chiefly stored, the Food Department has already increased foodgrain storage capacity from 600,000 to 800,000 tons and has rented privately owned godowns to store an additional 1,500,000 tons. But undoubtedly more space will be needed in the future.

CROPS AND MARKETS SHORTS

Australian Cotton Production Increases

Cotton production in Australia is estimated at around 170,000 bales (480 lb. net) in 1968-69 (August-July). This compares with the harvest of 150,000 bales in 1967-68 and is 10 times greater than the 1960-64 average production of 17,000 bales. Area harvested is placed at 79,000 acres in 1968-69, compared with 71,000 acres a year earlier and the 1960-64 average of 35,000 acres. Average yield in 1968-69 is 1,033 pounds an acre, up from 1,014 pounds the previous season, and nearly 4½ times greater than the 1960-64 average of 233 pounds an acre.

Although production has increased sharply in the past several years, this rate of increase probably will not be maintained. The Cotton Bounty Program, a strong force for expansion, was to expire in 1968 but has been extended to 1971. The program is to be phased out during its extended life with Bounty ceilings for the extended years being A\$4 million in 1969, A\$3 million in 1970, A\$2 million in 1971. The payments will be made on production; whereas, in the past the payments were on cotton sold to spinners.

Another factor that will limit expansion of cotton area is the availability of water for irrigation. Also, now that the country must export part of its production, price competition may be more severe, which could discourage further expansion of cotton production.

Australia has historically been a cotton importing country. In late 1968, for the first time that country sold about 9,500 bales of cotton to Japanese spinners. In the 1968-69 season, Australia may export around 30,000 bales. Cotton imports in 1968-69 are estimated at 15,000 bales, about one-third of total imports last year. Imports in the first 5 months of 1968-69 were primarily of the medium-staple group mostly from Uganda. In the past, the United States, Uganda, Pakistan, Brazil, Mexico, Tanzania, and Nigeria have supplied cotton for Australia.

Cotton consumption is expanding very slowly in Australia. In the current season cotton consumption is estimated to be about 135,000 bales.

Australia Increases Leaf Quota

The Australian Tobacco Board has recommended for approval to the Agricultural Council a marketing quota for the 1969-70 crop of 31 million pounds. This compares with a marketing quota of 28.5 million pounds for the current selling season and 26 million pounds for the crop a year earlier.

Some further increase in the marketing quota was anticipated by the industry due to the recent upward trend in tobacco usage and a decline in stocks held by manufacturers caused by crop shortfalls in recent years.

Australia is an important market for U.S. exports of unmanufactured tobacco, primarily quality flue-cured leaf. In calendar year 1968, a total of 19.7 million pounds of U.S. tobacco was exported to Australia, compared to 13.3 million pounds in 1967.

Trade in U.S. Livestock Products

Imports and exports of U.S. livestock and meat products were down sharply in January due to the dock strike. Exports of tallow, hides and skins, and variety meats were all down. Exports of lard were up 65 percent from the same month a year earlier partly in response to the export payment program. Pork exports were up threefold in January.

Imports of red meats in January were only about half those of a year earlier. Imports of feeder cattle were up 29 percent since movement of cattle was not affected by the dock strike.

U.S. IMPORTS OF SELECTED LIVESTOCK PRODUCTS

Commodity	January		Change from 1968
	1968	1969 ¹	
Red meats:			
Beef and veal:			
Fresh and frozen:	1,000	1,000	
Bone-in beef:	<i>pounds</i>	<i>pounds</i>	<i>Percent</i>
Frozen	898	281	-68.7
Fresh and chilled	574	796	+38.7
Boneless beef	71,054	39,809	-44.0
Cuts (prepared)	36	131	+263.9
Veal	2,321	799	-65.6
Canned beef:			
Corned	7,493	6,639	-11.4
Other, incl. sausage ..	1,774	1,129	-36.4
Prepared and preserved	4,698	2,275	-51.6
Total beef and veal ²	88,849	51,857	-41.6
Pork:			
Fresh, chilled & frozen ..	4,433	3,729	-15.9
Canned:			
Hams and shoulders ..	18,233	5,397	-70.4
Other	4,074	758	-81.4
Cured:			
Hams and shoulders ...	86	67	-22.1
Other	308	241	-21.8
Sausage	201	97	-51.7
Total pork ²	27,336	10,288	-62.4
Mutton and goat	5,880	230	-96.1
Lamb	1,263	665	-47.3
Other sausage	475	177	-62.7
Other meats, n.s.p.f.	1,696	459	-72.9
Total red meats ²	125,496	63,678	-49.3
Variety meats	690	240	-65.2
Wool (clean basis):			
Dutiable	11,665	7,836	-32.8
Duty-free	12,345	3,067	-75.2
Total wool ²	20,011	10,902	-45.5
	1,000	1,000	
Hides and skins:	<i>pieces</i>	<i>pieces</i>	
Cattle	155	27	-82.6
Calf	25	0	—
Kip	26	37	+42.3
Buffalo	42	21	-50.0
Sheep and lamb	2,243	479	-78.6
Goat and kid	614	70	-88.6
Horse	42	7	-83.3
Pig	75	42	-44.0
	<i>Number</i>	<i>Number</i>	
Live cattle ³	68,865	88,899	+29.1

¹ Preliminary. ² May not add due to rounding. ³ Includes cattle for breeding.

Bureau of the Census.

U.S. EXPORTS OF SELECTED LIVESTOCK PRODUCTS

Commodity	January		Change from 1968
	1968 1,000 pounds	1969 ¹ 1,000 pounds	
Animal fats:			
Lard	7,094	11,723	+65.3
Tallow and greases:			
Inedible	151,478	110,327	-27.2
Edible	453	1,522	+236.0
Meats:			
Beef and veal	2,565	2,066	-19.5
Pork	3,163	13,328	+321.4
Lamb and mutton	127	114	-10.2
Sausages:			
Canned	119	45	-62.2
Except canned	218	166	-23.9
Meat specialties:			
Canned	112	41	-63.4
Frozen	128	144	+12.5
Other canned	735	773	+ 5.2
Total red meats ²	7,163	16,682	+132.9
Variety meats	20,240	5,231	-74.2
Sausage casings:			
Hog	557	192	-65.5
Other natural	360	118	-67.2
Mohair	539	106	-80.3
Hides and skins:			
Cattle parts	2,645	1,894	-28.4
	1,000 pieces	1,000 pieces	
Cattle	997	976	- 2.1
Calf	170	57	-66.5
Kip	38	22	-42.1
Sheep and lamb	245	158	-35.5
Horse	3	4	+33.3
Goat and kid	8	0	—
	Number	Number	
Live cattle	4,115	2,250	-45.3

¹ Preliminary. ² May not add due to rounding.
Bureau of the Census.

EC Quotas on Turkish Fruits, Nuts

The European Economic Community has established calendar 1969 preferential tariff quotas and preferences for raisins, dried figs, and filberts imported from Turkey. Commodities and quota amounts were transposed in a similar article appearing in the March 3, 1969, issue of *Foreign Agriculture*. Correct levels are as follows:

EC 1969 TARIFF QUOTAS AND PREFERENCES FOR TURKEY

Item	Quotas	Preferential duty	Third- country duty
	Short tons	Percent ad valorem	Percent ad valorem
Raisins in packages of 15 kg. or less	42,516	—	6.0
Dried figs in packages of 15 kg. or less	20,833	4.7	10.0
Filberts, fresh or dried, shelled or not	20,613	2.5	4.0

Initial allocations, by country, were made covering 15,625 tons of figs, 31,890 tons of raisins, and 16,187 tons of filberts. The balance of the quotas are reserved for allocation according to the actual development of trade.

Quotas and preferences for Turkey are established annually in accordance with the EEC-Turkish Association Agreement. Similar quotas were established in 1967 and 1968.

Rain Damages Australian Raisins

Current reports indicate rain and humid weather conditions seriously damaged the 1969 sultana crop in the Australian district of Sunraysia. Present weather conditions are reportedly improving and rack drying losses are not expected to be a problem. Current sultana production estimates range as low as 45,000 short tons, 40 percent below the 1968 crop of 75,300 tons. Lexia raisins were not sufficiently mature to suffer serious damage; production is estimated at 7,800 tons, 16 percent above the 1968 crop of 6,700 tons. The current pack is estimated at 10,000 tons.

Ghana Increases Cocoa Producer Prices

Effective with the mid-1969 crop, Ghana cocoa farmers will receive 8.00 Cedis per 60-lb. headload (13.07 U.S. cents per pound), representing an increase of 1.63 cents per pound over the producer price paid for the 1968-69 main crop.

In addition, the Cocoa Marketing Board has made available to farmers through its buying agents, insecticide spray at new low subsidized prices. Import licenses have also been granted for 400,000 gallons of insecticide spray in efforts to increase production by controlling the spread of capsids.

Morocco's Sugar Production Down

Flood damage to sugarbeets in the Rharb Plain of Morocco will reduce sugar production considerably in 1969. Early in the season, the total area planned for the Rharb area was 72,270 acres but only 59,750 acres were planted. Almost one-third of this was lost because of floods, and an additional 5,000 acres were probably planted too late to make a crop. Total production of refined sugar for 1969 is estimated at about 75,000 tons, compared with 98,000 tons in 1968.

Current consumption in Morocco is estimated to be about 370,000 tons (refined basis). Import requirements for 1969 are expected to be about 290,000 tons. Moroccan sugar costs about \$18.74 per 50 kilos (17 cents per pound). Long-range plans call for an expansion to 189,000 acres of sugarbeets and 89,000 acres of cane, and output of 570,000 tons.

Canada's Flaxseed, Rapeseed Plantings

Canadian farmers' intentions as of March 1 were to sharply increase their plantings of flaxseed and rapeseed, according to the Dominion Bureau of Statistics release of March 19. Flaxseed area is indicated at 2,468,000 acres, 62 percent above last year's, while rapeseed is placed at 1,619,000 acres, 54 percent above plantings in 1968. Soybean plantings are expected to be maintained at last year's level of 295,000 acres.

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Emphasis Shifts in Australia's Livestock Industry

In Australia, several important changes are taking place within the livestock industry. The low prices and surpluses resulting from the world dairy glut have prompted Australia to switch its emphasis from dairy cattle to beef—a change that is reflected in record beef cattle numbers. The nation is also changing the makeup of its sheep industry and continuing to rapidly expand the hog industry.

Livestock numbers fully recovered

Cattle numbers have now completely recovered from the devastating drought of 1965 and surpassed by about 1 percent the predrought high of 19,055,000 head. But the national dairy herd hit the lowest point in 14 years, as all of the expansion went into beef cattle. The beef herd is now at an alltime high of 14.4 million head—7 percent above the 1967 level. Greatest percentage increase was in Tasmania, which showed a 16-percent gain, followed by New South Wales, with a 14.6-percent increase. Slaughter weights also were up as a result of the better pasture conditions.

Sheep numbers had recovered on March 31, 1968, to 166.9 million head—2.7 million over 1967—and a new record is believed to have been recorded this March. Here, producers are emphasizing lamb production over mutton owing to the greater ease in selling lamb locally and abroad. There is also a shift away from coarse wool to finer wool, and many producers unable to do this are moving into beef production.

There seems to be no stopping the hog industry short of a drastic price drop. Numbers reached a new record of 2,056,000 head in 1968—an increase of 14 percent over 1967—with the largest gain in New South Wales. These increases are, however, beginning to be felt in lower prices.

Australian production of beef and veal totaled 892,800 tons, or 1 percent more than in 1967. Over a fourth of this moved into export, with 79 percent of it going to the United States and the remainder to the United Kingdom and Japan. Arrivals in the United States of red meats from Australia and other exporters were so high that the suppliers were asked to voluntarily restrain exports. With this, a long-standing Australian problem was highlighted—its heavy dependence on a

single market for beef and veal exports. Thus, the Australian Meat Board has instituted a diversification scheme whereby exporters must sell in other markets to earn a right to sell in the United States.

Also, Japan emerged in 1967-68 as a better outlet as it raised its import quota for Australian and New Zealand beef and veal from 10,000 tons to 19,000.

Domestic production of mutton last year was off 14 percent from the year before to 331,000 tons, whereas production of lamb rose 9 percent to 255,000. This, of course, was in line with stress on slaughtering at lighter weights.

Mutton exports last year totaled 88,282 tons, or 2 percent more than in 1967. The big news, however, was the 133-percent jump in lamb exports to 23,843 tons. Japan was the largest mutton purchaser, with 32 percent, followed closely by the United States, with 30 percent. The United Kingdom remained the largest customer for lamb, accounting for almost half the total exports, and Canada was second largest. The United States was a close third, however, as sales to this market jumped 308 percent.

Slaughtering of hogs declined slightly in 1968 from the previous year, and this was reflected in a dip in pork output to 141,000 tons. Exports of pork dropped drastically in 1968, from 703 tons to only 488. New Guinea and Japan took the largest shares.

Live animal exports gain

A growing source of export income is foreign trade in live animals. In calendar 1968, Australia sold 649 horses for racing, mainly in Korea and Singapore, and 215 head for breeding purposes. Exports of live hogs rose more than five-fold to 1,412 head, and exports of sheep and lamb for breeding were up soundly to 5,578 head. Exports of other sheep and lamb totaled 328,480 head, with Kuwait the largest customer as usual, followed by Singapore. Cattle exports for breeding reached 3,782 head—1,600 going to Papua and 1,068 to Malaysia. Sales of other cattle totaled 538 head.

—Based on dispatch from FRED M. LEGE, III
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